Bulletin of the TEXAS ORNITHOLOGICAL SOCIETY

VOLUME 12
NUMBER 1

JUNE–JULY 1979

C O Martin 1979

BULLETIN OF THE

TEXAS ORNITHOLOGICAL SOCIETY

Vol. 12 June–July 1979 No. 1

Contents

Three Men in Texas Ornithology. *Terry C. Maxwell* 2

Robert P. Allen (1905–1963) Some Recollections. *Joseph J. Hickey* 8

Birding Texas' State Parks. *David H. Riskind and Edward A. Kutac* 11

General Notes

First Photographic Record of Greater Flamingo in Texas. *Brian R. Chapman, P. A. Buckley, and Francine G. Buckley* 20

First Documentation of Connecticut Warbler in Texas. *James G. Morgan and Ted L. Eubanks, Jr.* 21

Use of Artificial Materials in Nests of Urban Scissor-tailed Flycatchers. *Sandra J. Russell and Larry D. Foreman* 22

Black-billed Cuckoo (*Coccyzus erythropthalmus*) Breeding in South Texas. *David H. Fischer* 25

County Records for Bird Specimens in the Collection of The Museum of Arid Land Biology (University of Texas at El Paso) and Two Other West Texas Collections. *Tony Gallucci* 26

Notes and News 28

Three Men in Texas Ornithology

Terry C. Maxwell

Department of Biology, Angelo State University,
San Angelo, Texas 76901

The diverse bird life of Texas has attracted a considerable number of professional and amateur ornithologists. The major forces effecting the history of ornithology in this state have always been governmental agencies and educational institutions.

The earliest detailed records of Texas birds were obtained by the U.S. military, beginning with Major Stephen Long's expedition across the Panhandle in 1820. Military personnel, particularly surgeons (e.g. Ebenezer Swift, H. B. Butcher, J. C. Merrill, and S. M. Finley), seemed to devote as much effort to the study of birds as to military concerns.

With the demise of military operations in the 1880's, any official effort in Texas awaited the Bureau of Biological Survey (now U.S. Fish and Wildlife Service). Between 1890 and the early 1930's, such men as Vernon Bailey, Clarence Cottam, J. Stokely Ligon, Harry C. Oberholser, Alexander Sprunt, Jr., and Alexander Wetmore surveyed Texas birds under the direction of the Bureau.

For the past 40 years, university researchers have been the major professional contributors to knowledge of non-game birds in Texas. J. K. Strecker of Baylor University was the vanguard shortly after the turn of the century.

Scattered throughout this history are the names of men whose contributions were made largely without professional attachment to any agency or institution. Many of them had little or no formal education in the natural sciences. A consuming interest in birds, personal drive (or obsession, depending on your view point), and scrupulous attention to detail permitted them to make lasting contributions. I present in this paper short biographies of three such men (Fig. 1): William Lloyd, Robert L. More, and Roy W. Quillin. Their histories are windows into the broader history of Texas ornithology.

For invaluable assistance in obtaining material for this paper I thank: William A. Deiss (Smithsonian Institution Archives), Mrs. A. Datta (Zoology Library, British Museum), Keith A. Arnold and R. Douglas Slack (Texas A&M University), Eric Bolen (Texas Tech University), Mrs. Conrad Dresher, and Roy O. Kendall. G. Dan McClung offered helpful comments on an early draft.

William Lloyd

A wave of British emigration entered Texas in the 1870's that included an unusual number of educated and enterprising people (Geiser 1956). Among them was William Lloyd, an English citizen born in Cork County, Ireland in 1854 (Geiser 1956).

Lloyd arrived in San Antonio in 1876 where he dabbled in development of a cement company. In 1880 he moved west to John Loomis' Silvercliff Ranch in Concho County (Geiser 1956). The Indian wars, fought from Fort Concho, were

Fig. 1. Clockwise from the top: William Lloyd, Roy W. Quillin, and Robert L. More.

recently over. The short grass plains and limestone hills were given over to cattle and sheep ranching. Lloyd took a turn at sheep herding. Loomis (undated memoirs), who had learned taxidermy in Paris, taught "the little cockney Englishman" how to skin and preserve birds. That Lloyd learned this skill and much more about ornithology is evidenced by his election as an Associate of the American Ornithologists' Union in 1885 and his untiring work as a bird collector in Texas and Mexico for the next 12 years.

Lloyd lived on or near the Silvercliff Ranch through 1887. Initially, his only reference on birds was Coues' (1882) Key to North American Birds. In July 1885 Robert Ridgway offered to identify specimens for him (Lloyd to Ridgway 26 Sept. 1885). Lloyd sent specimens to Ridgway for the next three years, although many

were returned and kept in Loomis' personal collection. From fall 1885 through 1887 Lloyd traveled extensively in the Trans Pecos mountains of west Texas. He participated as well in W. W. Cooke's (1888) study of migration in the Mississippi Valley.

Collecting birds was no easy task on the edge of civilization. Lloyd wrote: "I had collected several specimens for the museum including the *P. a. castanifrons* . . . but losing my horses on the Pecos R(iver) my effects were overhauled by a number of cowboys whilst I was in search of them with the result that a no. of bird skins I'd made while crossing the plains were utterly ruined" (Lloyd to Ridgway 12 June 1887).

He spent much of 1887 collecting for Sennett. Two bushtits taken on 16 June 1887 in Limpia Canyon, near Ft. Davis, were subsequently described by Sennett (1888) as *Psaltriparus lloydi* (now *P. minimus lloydi*). Lloyd's life took a dramatic turn in December 1887 when he was hired by Fredrick DuCane Godman of the British Museum of Natural History to collect birds in Mexico (Lloyd to Godman 4 Dec. 1887).

With an agreement to work for four months at a monthly salary of $75.00 (along with $32.00 per month travel expenses), Lloyd entered Mexico in January 1888. He collected in the Sierra Madre Oriental of Chihuahua, Sonora, and Sinaloa. His overriding obsession during the trip was to obtain an Imperial Woodpecker (*Campephilus imperialis*), but he never saw one. His expedition was unexpectedly extended when he was thrown into jail in Batopilas, Chihuahua for shooting to death a local citizen (Lloyd to Godman 2 June 1888). News of his incarceration was the talk of the ornithological community (Sennett to Chapman 10 Aug. 1888). C. Hart Merriam, Chief of the Bureau of Biological Survey, Sennett, and Godman, through their respective governments, attempted to aid his release (Lloyd to Godman 4 Sept. 1888). He was exonerated and released from jail on 9 September 1888, but his equipment and many specimens were ruined.

Despite this traumatic experience, Lloyd was back in Mexico for Godman in January 1889. On this trip he penetrated south to Colima. Six months into the expedition, Lloyd heard from Godman that the specimens reaching England were in unsatisfactory condition (Lloyd to Godman 4 June 1889). Lloyd defended himself, blaming opening and poor repacking of specimen crates by shippers, but Godman discharged him in July.

Lloyd returned to Texas where he lived on a ranch near Marfa. He was visited by many biologists during this time, including Vernon Bailey and Maj. Charles Bendire. In July 1890, he accepted a commission from Merriam as a Special Field Agent (collector) for the Division of Economic Ornithology and Mammalogy, Department of Agriculture (Lloyd 1890–1892). For the next 2 years he collected birds and mammals in border counties along the Rio Grande and up the Texas coast. He was discharged from service at Houston in March 1892. Many of his collection records from this service were included in Bailey's (1905) Biological Survey of Texas.

By 1898 Lloyd had moved to New Orleans where he opened "The Old Curiosity Shop" and dealt in old books, stamps, and coins (Geiser 1956; Anon. 30 Oct. 1937). He never again worked in ornithology. Curiously, all his publications dated from his earliest experiences (1884, 1887a, 1887b, 1888). He died in New Orleans in October 1937 (Anon. 30 Oct. 1937).

Robert Lee (Bob) More

Wilbarger County lies south of the Red River in the Rolling or Mesquite Plains. Dan Waggoner began buying land here and moving cattle from the Oklahoma Indian Territory around the turn of the century. The Waggoner 3 D's eventually encompassed 800 square miles of buffalo grass and mesquite, one of the largest ranches in Texas. They needed a shrewd businessman to handle land transactions. They hired Robert L. More, then 27 years old (Dobie 1941).

More eventually became manager of the enormous Waggoner Estate, headquartered in Vernon, Texas. He was overseer of the cattle operation, and with the discovery there of oil, eventually managed the estate interest in over 3500 producing wells. Although the Waggoners were unaware at the time they hired him, they were to be largely responsible for providing the means to amass one of the largest egg collections in North America.

More made his first egg collection from the nest of a Black Vulture (*Coragyps atratus*) when he was fourteen. He learned to properly prepare egg specimens from J. A. Donald, a local surveyor and draftsman. After joining the Waggoners, More found that his frequent travels in a pickup truck over the vast ranch permitted him more opportunity to look for nests. He also could manage his time to travel hundreds of miles away from Vernon in search of some prize clutch of eggs (Dobie 1941).

His bird interests were not entirely restricted to oology. As Herbert Brandt (1940) noted, he was widely respected for his knowledge of the natural history of Texas plains birds. With Donald he published a list of the birds of Wise County, Texas (1894). Harry C. Oberholser corresponded with More frequently in the preparation of the large work on Texas birds (Dobie 1941). His only other published contributions were a short note on Mississippi Kites (*Ictinia mississippiensis*) (1927) and a bird list of Wilbarger County (1929), written with J. K. Strecker. More was elected an Associate of the American Ornithologists' Union in 1921.

But oology was Bob More's passion. At the time of his death in 1941, his egg collection totaled 12,000 to 15,000 specimens. About 750 species were represented. Among the rarities were eggs of California Condor (*Gymnogyps californianus*) and Passenger Pigeon (*Ectopistes migratorius*). There were about 150 mounted skins, including a California Condor, later given to Brandt for safer keeping at the Cleveland Museum of Natural History (Dobie 1941). More kept his collection immaculately curated in a special room of the Waggoner Estate offices.

The Robert L. More egg collection remains today in the care of his descendents. Apparently largely intact, this important pre-DDT collection is housed on the second floor of the family service station in Vernon.

Roy William Quillin

Bird egg collecting was, at one time, an ardent pursuit of many gentleman hobbyists. As late as 1953, a rare Zone-tailed Hawk (*Buteo albonotatus*) nest in west-central Texas, well north of its normal range, was carefully guarded to protect it from attempts to collect the eggs. Many such collections were poorly or unreliably catalogued and succeeded in contributing little other than harass-

ment of rare birds. When collected with care and attended by reliable data, however, they were valuable records. Roy W. Quillin assembled such a noteworthy collection from Texas.

Quillin was born 21 April 1894 in Taylor, north of Austin, Texas. Although little is recorded of his personal life, he was apparently always active and put a whole-hearted effort into all his varied pursuits. He played semi-professional baseball, was a lepidopterist and herpetologist, and he raised prize chrysanthemums. He earned his living for 40 years in the marketing department of the Magnolia Petroleum Co. (now Mobil Oil Corp.) in San Antonio. His wife, Ellen, founded and directed for 37 years the Witte Memorial Museum in San Antonio (Mrs. Conrad Dresher and Roy O. Kendall, pers. comm.). A biography ended here would total an accomplished life, but Roy Quillin accomplished much more.

The Rob and Bessie Welder Wildlife Foundation, famed for support of graduate research in ornithology and other natural sciences, completed in 1973 an addition to its headquarters building to house the large Quillin egg collection. Roy Quillin collected eggs for 60 years from the Texas coastal bend to the Big Bend of the Rio Grande. He took his Model-T Ford over roads and near-roads that we find hard to imagine today. His eggs were carefully blown with but one small hole; two holes are normally required to empty an egg. He built wooden cabinets to house the carefully catalogued egg sets (Eric Bolen, pers. comm.).

The collection totals about 4000 sets of some 10,000 to 12,000 eggs. Three-hundred and fifty-three species are represented, although not all are from Texas. Important species represented in the collection include: Brown Pelican (*Pelecanus occidentalis*) and Peregrine Falcon (*Falco peregrinus*)—pre-DDT era, Bald Eagle (*Haliaeetus leucocephalus*), Attwater's Prairie Chicken (*Tympanuchus cupido attwateri*), Greater Sandhill Crane (*Grus canadensis tabida*), Light-footed Clapper Rail (*Rallus longirostris levipes*), California Least Tern (*Sterna albifrons browni*), and Golden-cheeked Warbler (*Dendroica chrysoparia*). Many interesting tropical species from Texas are also included: White-tailed Hawk (*Buteo albicaudatus*), Chachalaca (*Ortalis vetula*), Jacana (*Jacana spinosa*), Red-billed Pigeon (*Columba flavirostris*), White-fronted Dove (*Leptotila verreauxi*), Groove-billed Ani (*Crotaphaga sulcirostris*), Tropical Kingbird (*Tyrannus melancholicus*), and Kiskadee Flycatcher (*Pitangus sulphuratus*).

Although Quillin published but three technical articles on birds (1916, 1918, 1935), he contributed much information to other works. Most notable were frequent observations on nesting of many species recorded in Bent's (1919–1968) Life Histories of North American Birds. He also supplied information for an early Texas Game, Fish and Oyster Commission booklet on Texas birds (Burr 1936). Roy Quillin died after a paralyzing illness in August 1974.

Literature Cited

Anonymous. 30 Oct. 1937. William Lloyd, 84, veteran stamp, coin dealer dies. The Times-Picayune, New Orleans.

Bailey, V. 1905. Biological Survey of Texas. N. Amer. Fauna, No. 25. U.S. Dept. Agric., Wash., D.C.

Bent, A. C. 1919–1968. Life Histories of North American Birds. Bulletins of U.S. Nat. Mus., Wash., D.C.

Brandt, H. 1940. Texas Bird Adventures. The Bird Research Found., Cleveland.

Burr, J. G. 1936. Brief Studies in Texas Bird Life. Booklet No. 10, Texas Game, Fish and Oyster Comm., Austin.

Cooke, W. W. 1888. Report on Bird Migration in the Mississippi Valley in the Years 1884 and 1885. Bull. Div. Economic Ornith. and Mamm., U.S. Dept. Agric., No. 2. Wash., D.C.

Coues, E. 1882. Key to North American Birds. 2 vols. Estes and Lauriat.

Dobie, J. F. 1941. Bob More, man and birdman. Southwestern Rev. 27(1):135–155.

Donald, J. A., and R. L. More. 1894. A list of the birds of Wise County, Texas. Naturalist 1:33–34, 56–57, 101–104.

Geiser, S. W. 1956. William Lloyd, British-American natural-history collector in Texas. Field and Laboratory 24:116–122.

Lloyd, W. 1884. Black-capped Vireo. Ornith. and Oolog. 12:104.

Lloyd, W. to R. Ridgway. 26 Sept. 1885. Personal correspondence. Smithsonian Institution Archives, Wash., D.C.

Lloyd, W. 1887a. Birds of Tom Green and Concho Counties, Texas. Auk 4:181–193, 289–299.

———. 1887b. Some new birds for Texas. Ornith. and Oolog. 12:59–60.

Lloyd, W. to R. Ridgway. 12 June 1887. Personal correspondence. Smithsonian Institution Archives, Wash., D.C.

Lloyd, W. to F. DuC. Godman. 4 Dec. 1887. Personal correspondence. Zoology Library, British Museum (Nat. Hist.), London.

Lloyd, W. 1888. What birds indicate proximity to water, and at what distance? Auk 5:119.

Lloyd, W. to F. DuC. Godman. 2 June 1888. Personal correspondence. Zoology Library, British Museum (Nat. Hist.), London.

Lloyd, W. to F. DuC. Godman. 4 Sept. 1888. Personal correspondence. Zoology Library, British Museum (Nat. Hist.), London.

Lloyd, W. to F. DuC. Godman. 4 June 1889. Personal correspondence. Zoology Library, British Museum (Nat. Hist.), London.

Lloyd, W. 1890–1892. Diary of trip through western Texas. Smithsonian Institution Archives. Wash., D.C.

Loomis, J. A. undated. Texas Ranchman: Memoirs of John A. Loomis. Edited and privately published by S. L. Wilson, Wash., D.C.

More, R. L. 1927. Mississippi Kite in Texas. Oologist 44:24.

———, and J. K. Strecker. 1929. The summer birds of Wilbarger County, Texas. Contr. Baylor Univ. Mus., no. 20. Waco.

Quillin, R. W., and R. Holleman. 1916. The San Domingo Grebe in Bexar County, Texas. Condor 18:221–222.

Quillin, R. W. 1918. The breeding birds of Bexar County, Texas. Condor 20:37–44.

———. 1935. New bird records from Texas. Auk 52:324–325.

Sennett, G. B. 1888. Descriptions of a new species and two new subspecies of birds from Texas. Auk 5:43–46.

Sennett, G. B. to F. Chapman. 10 Aug. 1888. Personal correspondence. Ornith. Dept., American Museum of Nat. Hist., New York.

Robert P. Allen (1905–1963)
Some Recollections

Joseph J. Hickey

Department of Wildlife Ecology, University of Wisconsin,
Madison, Wisconsin 53706

Robert P. Allen was, wrote Sandy Sprunt, "the epitome of the field biologist." Bob was something much more: he was a man's man. He was strong and tireless in the field, having spent 3 years at sea. He had a hearty laugh and a gorgeous sense of humor, and he prized old salty characters including the outlaws he encountered holed up in the Everglades. Below the tattooed dagger on his forearm was the word: "Singapore." He was scarcely a typical audubonite. He was not particularly attracted by women, although he had a long and happy marriage to an understanding musician. Gushing old ladies in sneakers made him feel plain uncomfortable; stuffed shirts of the male sex were even worse. His love of birds was intense, and he remained constantly fascinated by the mystery of their lives. His enthusiasm was contagious, but he could be enthusiastic about people as well as birds. You felt refreshed in talking with him. To Konrad Lorenz, perhaps the most enthusiastic of all modern scientists, "Meeting Rob Allen [for the first time] was like meeting my own brother."

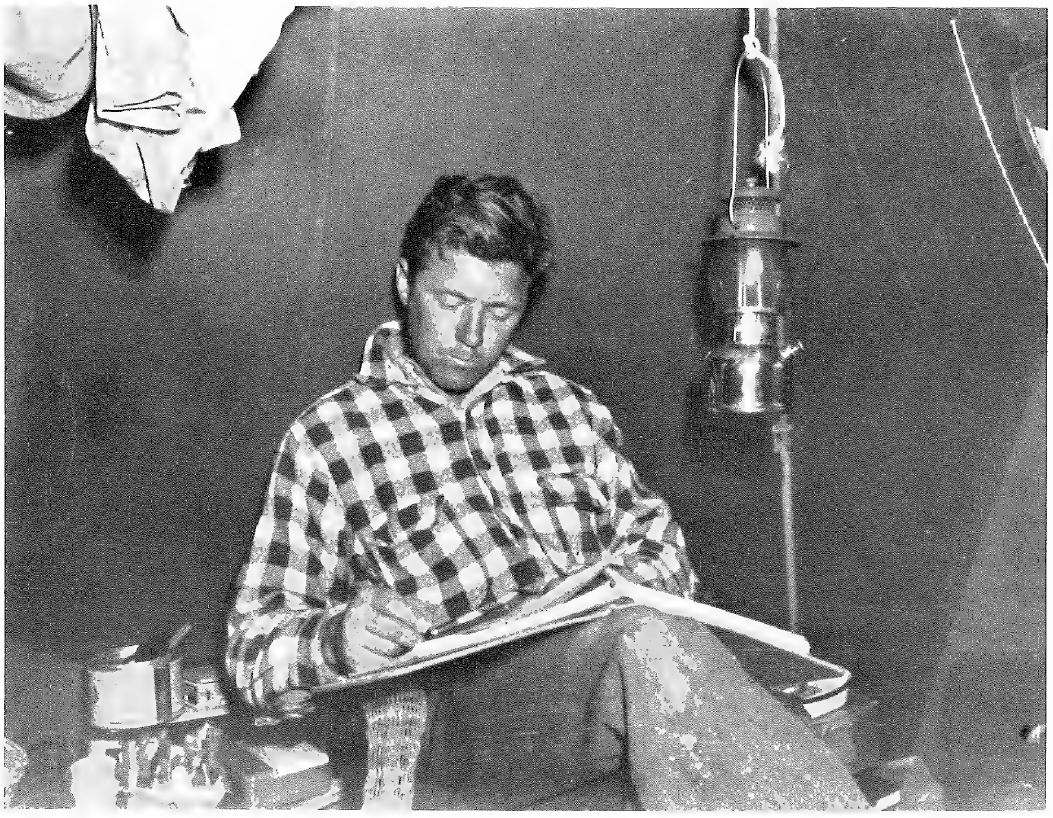
You'll find the facts of Bob's life set forth in an article in *The Auk* for 1969, pp. 26–34, including a picture of a bearded RPA that I barely recognize. My recollections of Bob stem from his New York days (and nights!) in the 1930s where for 2 happy years we two officers together ran the Linnaean Society of New York.

It was a period of ornithological ferment, when all sorts of new approaches to the intensive study of birdlife were spilling out of a seminar for businessmen, run by Ernst Mayr at the American Museum of Natural History. About 15 of us including Bob sat in on these once a month for some years listening to reviews of the (German) literature by Mayr and finally presenting reviews ourselves. Wrote *The Auklet* in tribute to Mayr at the time:

> "If you love the birds and beasties,
> And their words you would adore,
> Learn to speak to them in German,
> And you'll love them more and more!"

Bob was now exposed to an exciting mixture of papers on ecology and behavior, to the ideas of Tinbergen and Lorenz, Palmgren and H. E. Howard. Margaret Nice's first great volume on the Song Sparrow went out to all Linnaean members in 1939. It was the rich background of these authors and others that was to provide the wonderfully wide spectrum of Bob's monograph on the Roseate Spoonbill in Florida and Texas.

Education is the sum total of all one's experiences. Bob Allen's education included stimulating contacts with Warren F. Eaton and William Vogt, his col-



R. P. Allen at work: writing up field-notes during his spoonbill study in 1941.

leagues in the National Audubon headquarters. For quite a period, Roger Peterson also lived in the Allen household on Long Island. It was hard then to get the subject of conversation off birds, but somehow Allen's wife survived. As I said, she was an understanding person.

World War II was to Bob a personal crisis. Once as Pearl Harbor Day was approaching, I demurred in the Allens' living room at the huge task it would take to rescue Britain. That remark almost broke up a beautiful friendship: "Dammit, Joe," exploded Bob pounding the table, "don't you know that the British navy is the *very foundation* of our civilization?"

Despite having two small children, Bob enlisted as soon after Pearl Harbor as he could. His book, *The Flame Birds,* which Dodd, Mead published in 1947 is a testimonial to Bob's ceaseless devotion to the cause of wildlife conservation. The manuscript was actually written on the mine-planter on which Bob served throughout the war. I once told Bob that the book disappointed me because it contained no hints of his relish for interesting human beings. "Joe," he replied, "I had that stuff in the manuscript, but the publisher insisted on taking it out!" I'll never forgive Dodd, Mead.

Bob's search for the nesting grounds of the Whooping Crane represents a saga that has never been completely told. Flying with Bob Smith through a narrow but deep gorge of the Bell River in the Yukon, the two Bobs inexplicably encountered a dense cloud bank. There was no way to turn back. Smith calmly dropped the plane close to the river and flew through the twisting gorge with his

head cocked outside the plane's window. After the first nesting cranes were found in the Northwest Territories, Bob was given incorrect directions which led him into an impenetrable wilderness. It was a tribute to his tenacity that even this incredible situation could not stop him. He reached the nesting site on a second try.

Somehow this account fails to do justice to the vibrant nature of Bob Allen. My own mind tends to center on Bob's terrific stories which somehow convey more of his humor, outlook, and personality. They were invariably told with great enthusiasm and gusto. There's the old Capt. Saltonstall whaling epic that once in a great while we got Bob to recite at parties . . . the amusing event that proved R. T. Peterson was now *really* famous . . . the story of Bob's merchant ship's minor mutiny in Shanghai before the war . . . and the episode when Bob talked spoonbills to the top of the *N.Y. Herald-Tribune* staff all night long after the newspaper had been put to bed. I could go on, but editors still have limited budgets.

You'll have to conclude: this was an unforgettable man!

Birding Texas' State Parks

David H. Riskind and Edward A. Kutac

Texas Parks and Wildlife Department,
4200 Smith School Road, Austin, Texas 78744, and
5800 Reicher Drive, Austin, Texas 78723

Texas' state park system was established in 1923, and its parks have always been popular for the observation and study of Texas' diverse birdlife. This popularity is due to the parks' proximity to urban areas, ease of access, and, most importantly, because of the habitat(s) protected therein. For example, older parks such as Palmetto and Buescher-Bastrop state parks contain prime habitat which is accessible by public roads. Newer parks provide convenient access to good birding habitat via prepared trailways, footpaths, or, in some cases, nature or interpretive trails. Some of the newer parks contain good birding habitat easily accessible by paved roads. Most natural areas (or back country) of larger parks are open to all, but can be fully appreciated only by those willing to walk some distance to observe birdlife or other natural features in an undisturbed setting. Some parks such as Sea Rim and Galveston Island state parks, and Lake Somerville State Recreation Area have special trailways and observation blinds to facilitate observation and photography of birdlife, and other wildlife as well.

Texas, with its diversity of habitats from beaches to high mountains, grasslands, pine forests, Hill Country, the desert Trans-Pecos, inland lakes and coastal wetlands, offers unending birding opportunities. These opportunities can be realized quite nicely by birding the Texas state parks system (Fig. 1).

Of the major land resource areas in Texas (see Fig. 2), several are well represented in units of the Texas park system as conservation lands, i.e., habitat preserves. Perhaps best represented are habitats within the broadly defined Balcones Escarpment Zone and the Edwards Plateau natural region of Central Texas. Parks with outstanding avifauna, including several specialty species, located in this zone are Abilene (in part), Garner, Lost Maples State Natural Area, McKinney Falls, Meridian, and Pedernales Falls state parks.

Within Abilene State Park, where Central Texas begins to give way to West Texas and the Rolling Plains, Mississippi Kites nest and can be found overhead in spring and summer during daylight hours. Here also are many other common Central Texas species such as the Golden-fronted Woodpecker, Western Kingbird, Scissor-tailed Flycatcher, Bewick's Wren, House Finch, and Lark Sparrow.

In the Hill Country of Central Texas on the beautiful, clear flowing Frio River is Garner State Park. This is a very reliable place to look for the Green Kingfisher and the Black Phoebe near the northeastern limit of their range. Also nearby in scrub vegetation along the roads to the park are good locations for Black-capped Vireos.

Lost Maples State Natural Area, located north of Vanderpool on the Sabinal River, is also an excellent place to look for Green Kingfishers. From mid-March to the end of June, the Golden-cheeked Warbler is probably the most common

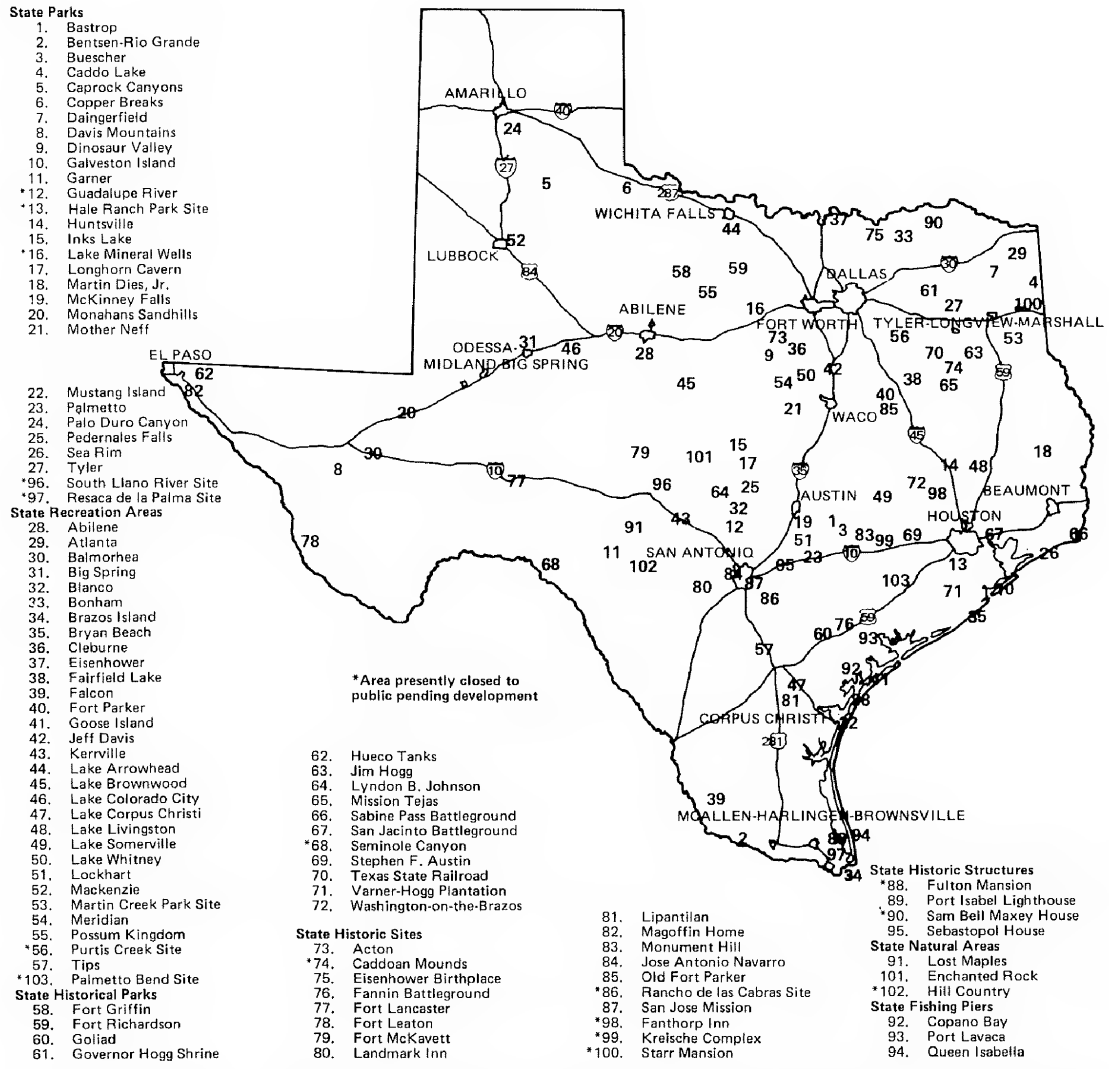


Fig. 1. Distribution of Units of Texas' State Park System (see Texas Highway map for more precise route information).

bird in the park. Common Ravens can easily be found here, as they nest in the Sabinal Canyon. Turkey Vultures are practically always overhead, but should be examined closely because occasionally there will be a Zoned-tailed Hawk among them.

McKinney Falls State Park, near Austin, is another park with a variety of habitats. Each has its own variety of birds and during migration the park's woodlands are a good warbler trap. Along Onion Creek which flows through the park, a Green Kingfisher can occasionally be seen. Brown Creepers, Golden-crowned Kinglets, Ruby-crowned Kinglets, Purple Finches, Pine Siskins, and Winter Wrens all find McKinney Falls a favorite place to overwinter.

A park which is typical of the Edwards Plateau and Hill Country is Pedernales Falls State Park, west of Austin. Golden-cheeked Warblers nest here and should be looked for at the top of the bluff all along the river. Also nesting at Pedernales Falls State Park are Rufous-crowned Sparrows, Cañon Wrens, Bewick Wrens,

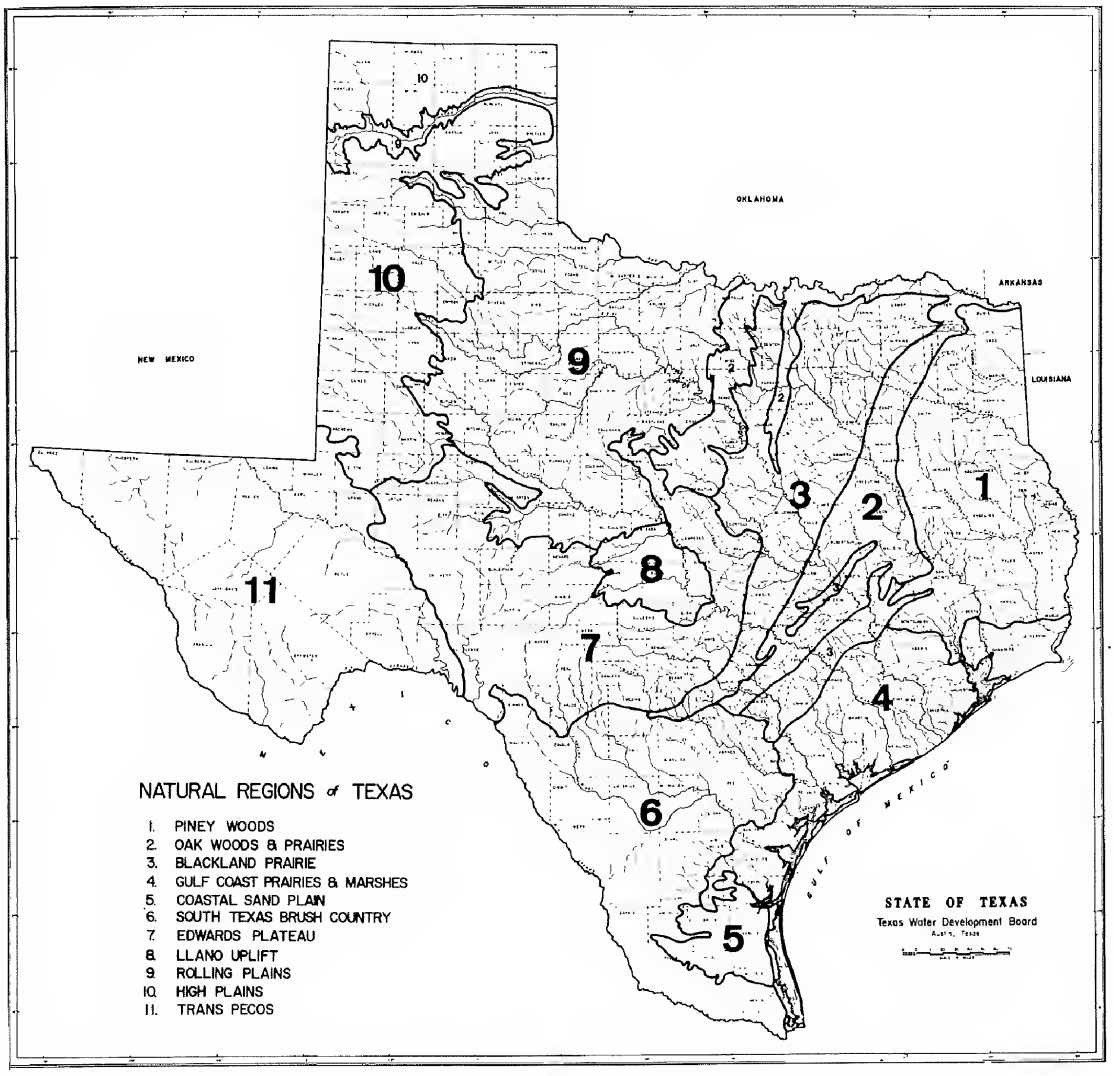


Fig. 2. Natural Regions of Texas: from *Preserving Texas' Natural Heritage,* LBJ School of Public Affairs, University of Texas, Austin, 1979.

Blue Grosbeaks, and Painted Buntings. Osprey may be seen occasionally along the river.

Meridan State Park is the northernmost nesting area of the Golden-cheeked Warbler. Look for the warbler in the northwest section of the park in the high ground behind the lake. Black-capped Vireos also nest at Meridian; however, they are best seen in the more wooded section in the central part of the park. The avifauna at Meridian contains an interesting blend of eastern and western species and in addition contains a lake which attracts a variety of waterfowl and shorebirds during migration. Several trails provide birders easy access to all of the prime birding in this 550 acre park.

The Caprock Escarpment which separates the Southern High Plains (Llano Estacado) and the Rolling Plains is represented by Palo Duro Canyon and Caprock Canyons state parks. Habitats available to birdlife include arid grasslands, chaparral, wetlands, and mesic, heavily timbered canyons.

Palo Duro Canyon State Park is usually a dependable location to find the Northern Shrike in winter. They may be found in the large canyon just as you enter the park and before you start losing elevation. In the winter Townsend's Solitaires are common; watch overhead for Golden and Bald eagles; Tree Sparrows can be found near and around the horse corrals.

Caprock Canyons State Park in Briscoe County straddles the Caprock Escarpment zone and includes some of Texas' Rolling Plains country. Its avifauna is much like Palo Duro Canyon except that in its 100 acre, clear water lake, numerous waterfowl occur as migrants or as winter residents. Some good winter records include Red-throated Loon, Red-necked Grebe, and Common Merganser. Other birds of interest include Rough-legged Hawk, Ferruginous Hawk, Golden Eagle, Prairie Falcon, Sage Thrasher, Western and Mountain bluebirds, and Brewer's Sparrow.

Within the Prairie Dog town at Mackenzie State Park in Lubbock (a city park with only urban birds, generally), is the most popular place in Texas to find Burrowing Owls. Mississippi Kites nest in the park as well.

Coastal beaches, dunes, prairies, marshlands, and maritime woodlands are well represented at Goose Island, Sea Rim, Galveston Island, and Mustang Island state parks. Habitats within these parks are especially important to colonial and fish-eating water birds, shorebirds and waterfowl. Goose Island Sate Recreation Area, north of Rockport, offers a wide variety of habitats, including sandy beaches with shorebirds, inland marshes with herons and egrets, and huge live oak trees where migrating warblers congregate along with practically all of the other migrating land birds which utilize the Central Flyway. Sea Rim, near Sabine Pass, and Galveston Island state parks provide excellent opportunities to see and photograph a variety of shorebirds, waterfowl, and fish-eating birdlife. Galveston Island is particularly good for observing Clapper Rails. Both of these parks have interpretative trails which allow easy access to good birding habitat. Least Terns are fairly common at Bryan Beach State Recreation Area near Freeport.

Of several parks in the East Texas Pineywoods (e.g. Tyler, Daingerfield, Martin Dies, Jr., and Caddo Lake), only one, Huntsville, has been birded systematically. Birders interested in Pineywoods birdlife would be well advised to visit Huntsville State Park, and when Lake Raven is low, extensive mudflats attract a variety of shorebirds. Typical nesting species at the Huntsville State Park include Red-shouldered Hawk, Barred Owl, Pileated, Red-headed, Hairy, and Downy woodpeckers, Acadian Flycatcher, Brown-headed Nuthatch, and White-eyed and Yellow-throated Vireo. Twelve warbler species have nested in the park.

South Texas brushlands and subtropical woodlands, with some of the state's finest birding, are represented by Bentsen-Rio Grande, Falcon, Goliad (in part), and Lake Corpus Christi state parks, and the newly acquired (but undeveloped) Resaca de la Palma park site in Cameron County. In the subtropical lower Rio Grande Delta, Bentsen-Rio Grande Valley State Park is one of the top birding spots in the nation. Here all of the specialties of the Lower Rio Grande Valley can be found, including Harris' Hawk, Pauraque, White-winged, White-fronted and Ground doves, Bronzed Cowbird, Chachalaca, Groove-billed Ani, Olive Sparrow, Green Jay, Kiskadee Flycatcher, and Lichtenstein's and Black-headed Orioles. A favorite pastime of birders is to drive the roads of Bentsen-Rio Grande late at night to view Pauraques on the road, hear Screech Owls calling from

nearly every tree, and to look for Barn Owls perched along the roadways. The diminutive Elf Owl has been a regular nester near the group picnic site.

Falcon State Park is situated where the subtropical Lower Valley begins to give way to the arid west. Practically all of the specialties at Bentsen-Rio Grande Valley State Park can be found here also; but in addition, desert species including Lesser Nighthawk, Black-throated Sparrow, Scaled Quail, and Cactus Wren occur at Falcon. Falcon State Park is the easiest place in Texas to photograph the Roadrunner. At Falcon Dam, adjacent to the park, Olivaceous and Double-crested cormorants winter together and here can be easily compared. Olivaceous Cormorants nest in the Falcon State Park area. Just below the dam is the only location in the United States where the Ringed, Green, and Belted kingfishers can be found together.

Goliad State Historical Park, near Goliad, is the northernmost park in our system which contains species that are most common in the parks of extreme south Texas. Birds such as the Groove-billed Ani, Pauraque, Wied's Crested Flycatcher, Long-billed Thrasher, and the Olive Sparrow may be seen here. Additional interest is provided by a compliment of birds which occupy a riparian gallery forest and which are characteristic of eastern temperate woodlands and forests.

Lake Corpus Christi State Recreation Area, like Goliad has a mixture of eastern, southwestern, and neotropical avifauna but in addition, because of the lake, shelters a compliment of shorebirds, waterfowl, and fish-eating birds.

The Oak Woods and Prairies natural region of Texas is represented in our park system by such well known birding "hot spots" as Bastrop, Buescher and Palmetto state parks (perhaps the best known). Lake Somerville State Recreation Area, which offers an excellent variety of waterfowl, is within this resource area as well, as is Fairfield Lake State Recreation Area which supports a cormorant rookery.

In Bastrop and Buescher state parks and along Park Road 1 between the two parks, can be found many species which commonly occur 200 or more miles further eastward. These eastern species include nesting Wood Thrushes and Pileated Woodpeckers. Along Alum Creek, Hooded, Kentucky, Northern Parula and Swainson's warblers have nested. Pine Warblers nest throughout the Pineywoods in the parks. Some winters it is possible to find Red Crossbills at Bastrop State Park. Also usually present are Hairy Woodpeckers, not common otherwise in Central Texas.

Palmetto State Park, along the San Marcos River, is a reliable park in Texas for finding the Caracara. Barred Owls and Red-shouldered Hawks are also very plentiful. Green Kingfishers were recorded in both 1977 and 1978 here. When there is water in the marshes, the Winter Wren will spend the winter here; and, in summer look for Prothonotary and Hooded warblers and the Northern Parula. All nest here most years. Palmetto State Park is an excellent park for wintering sparrows. Usually from 12 to 13 different species of wintering sparrows can be found here. Stephen F. Austin State Park, at San Felipe on the Brazos River, seems to be a favorite spot for Barred Owls, and campers at Stephen F. Austin sometimes find it difficult to fall asleep when these birds are calling back and forth.

The vast natural region of Texas known as the Trans-Pecos is poorly repre-

sented in our park system; however, Hueco Tanks State Historical Park and Davis Mountains State Park harbor noteworthy avifauna. The birdlife of Monahans Sandhills is little known, yet upon careful study should prove interesting.

Davis Mountains State Park, in the foothills of the Davis Mountains, is the easiest place in Texas to find the Montezuma Quail which daily comes into the campground, apparently looking for water. You have to be patient; however, it happens regularly enough for your patience to be rewarded. Also common here are the Scrub Jay, Curve-billed Thrasher, House Finch, Cassin's Kingbird, Hepatic Tanager, and Phainopepla. Watch for Black Hawks overhead, as for several years now they have nested in the Davis Mountains. During winter, Steller's and Piñon jays, Clark's Nutcrackers, Mountain and Western bluebirds, and Mountain Chickadees may come down into the park from their summer nesting grounds further north in the Rocky Mountains.

Hueco Tanks State Historical Park, an unusual oasis in the desert just west of El Paso, noted for its granite-like rock formations and Indian rock art, has its own bird specialties. Nesting species include White-throated Swift, Crissal Thrasher, and Scott's Oriole. During migration, look for the Western Flycatcher, Violet-green Swallow and MacGillivray's Warbler. In the sparse desert nearby, the Sage Sparrow is resident.

The birdfinding guide to some of our parks, as presented above, is not comprehensive; rather, it is only a sampler of some of the birding opportunities available in Texas' state parklands. We would also like to take this opportunity to acquaint the reader with some insight into our natural resource management program, especially as regards the avifaunal resource.

An important aspect of our natural resource management efforts in Texas' state parks is an inventory and appraisal of the biological resources—which obviously also includes an assessment of our park's birdlife [for additional information on natural resource management in Texas parklands see: Riskind, 1977, *Bull. Texas Ornithological Society*: 10(2):26–30]. Beyond our staff's initial assessment and ongoing field observations supplemented by literature and/or resource queries, the primary method we use to obtain data regarding a park's birdlife is to solicit assistance from field ornithologists, local authorities on an area's birdlife, and, on occasion, from professional ornithologists. Data on our parks' birdlife also are derived from Christmas counts, U.S. Fish and Wildlife Service's breeding bird censuses, and banding studies or scientific research usually performed by university graduate students. Also, information is garnered from trip logs of casual but organized outings by Audubon and ornithological society members and nature study groups.

The significant factor in our successful gathering of information on an area's birdlife is the generous volunteer effort on behalf of Texas' birders, ornithologists, and birding organizations. Without exception, each of our checklists (Tables 1 and 2) has been developed through the devoted assistance of volunteers. In most cases, data are gathered at least two years prior to the publication of even a preliminary checklist; Huntsville's checklist was developed through almost daily information gathering from census lines, while Palmetto's checklist was based upon approximately twenty-five years of record keeping!

Through continued public interest and contributions, we periodically update and revise our park bird checklists. We are especially interested in receiving new

Table 1. Bird checklists available from Texas Parks and Wildlife Department.[1]

1. Checklist of Birds: Abilene State Recreation Area. September 1977. Compiled by George A. Newman. [Taylor]
2. Birds of Bentsen-Rio Grande Valley State Park. March 1973. (Revision by John Arvin in progress.) [Hidalgo]
3. Birds of Buescher and Bastrop State Parks. August 1976. Compiled by Robert Neill. [Bastrop]
4. Birds of Davis Mountains State Park: A Seasonal Checklist. July 1978. Compiled by Frances Williams and Pansy Espy. [Jeff Davis]
5. A Tentative Checklist of the Birds of the Gus A. Engeling Wildlife Management Area and Anderson County, Texas. November 1974. Compiled by George H. Veteto, Charles E. Davis, and Ray V. Hart. [Anderson]
6. Birds of Falcon State Recreation Area: A Field Checklist. March 1977. Compiled by John C. Arvin. [Starr & Zapata]
7. Birds of Fort Leaton State Historic Site: Presidio County, Texas. (In press.) Compiled by Steve West.
8. Birds of Galveston Island State Park. September 1976. Compiled by Mrs. J. A. (Linda) Snyder. [Galveston]
9. Birds of Goliad State Historical Park. (In Press.) Compiled by Gene W. Blacklock. [Goliad]
10. Birds of Hueco Tanks State Historical Park: A Field Checklist. December 1977. Compiled by Kevin Zimmer. [El Paso]
11. Birds of Huntsville State Park. May 1977. Compiled by Kelly B. Bryan. [Walker]
12. A Checklist of Birds of the Kerr Wildlife Management Area, Kerr County, Texas. May 1978. Compiled by G. L. Butts. [Kerr]
13. Birds of Lake Corpus Christi State Recreation Area. June 1976. Compiled by Gene W. Blacklock. [San Patricio]
14. Birds of Lake Somerville State Recreation Area. March 1979. Compiled by Keith Arnold and Ken Ridlehuber. [Lee & Burleson]
15. Birds of Lake Whitney State Recreation Area. May 1976. [Hill]
16. Birds of LBJ State Historical Park: A Preliminary Seasonal Checklist. April 1976. Compiled by Stanley L. Archer. [Gillespie]
17. Birds of McKinney Falls State Park: A Field Checklist. July 1977. 2nd Edition. Compiled by E. A. Kutac and David H. Riskind. [Travis]
18. Checklist of Birds of Meridian State Park. June 1975. Compiled by Warren Pulich. [Bosque]
19. Birds of Palmetto State Park. August 1975. Compiled by Rose Ann Rowlett, Ray Chancellor, and Fred Webster. [Gonzales]
20. A Checklist of the Birds of Palo Duro Canyon State Park. August 1975. Compiled by Kenneth Seyffert, Peggy Acord, and Charles Smith. [Armstrong/Randall]
21. Birds of Pedernales Falls State Park: A Seasonal Checklist. September 1976. 3rd Edition. [Blanco]
22. Birds of Sea Rim State Park. October 1976. [Jefferson]

[1] Listings are approximately alphabetical by park; counties shown in brackets.
NOTE: All checklists are available, free of charge, from the Resource Management Section, Texas Parks and Wildlife Department, 4200 Smith School Road, Austin, Texas 78744.

or unusual observations (with details, of course), status changes, new nesting/breeding records, or even anecdotal accounts of unusual behavior or phenomena. These observations and accounts need not be restricted to parks with published lists. We also catalogue observations for parks which lack checklists, and as data accumulate, this information becomes increasingly more meaningful. Cooperators may leave observations at a park headquarters for forwarding, or the information

Table 2. Checklists in progress.[1]

1A. Bentsen-Rio Grande Valley State Park [Hidalgo] John Arvin, Compiler (Revision)

2B. *Bryan Beach State Recreation Area [Brazoria] Tom Collins, Compiler

3C. *Caddo Lake State Park [Harrison] Lin Risner, Compiler

4D. Caprock Canyons State Park [Briscoe] Ken Seyffert, Compiler

5E. *Eisenhower State Recreation Area [Grayson] Ray Chancellor, Compiler

6F. Goose Island State Recreation Area [Aransas] Audubon Outdoor Club, Corpus Christi, Compiler

7G. *Hackberry State Recreation Area [Denton] Hazel Nichols, Compiler

8H. Hale Ranch State Park Site [Ft. Bend] Ornithology Group, Houston Outdoor Nature Club, Compiler

9I. *Inks Lake State Park [Burnet] Greg and Becky Lasley, Chuck Sexton, and E. A. Kutac, Compilers

10J. *Lake Livingston State Recreation Area [Polk] Compiler needed

11K. *Lost Maples State Natural Area [Bandera and Real] Compiler needed

12L. *Monahans Sandhills State Park [Ward/Winkler] Midland Naturalists, Inc., Compilers; Frances Williams, Coordinator

13M. *Mother Neff State Park [Coryell] Compiler needed

14N. *Pedernales Falls State Park [Blanco] Greg and Becky Lasley and Chuck Sexton, Compilers (Revision)

15O. *Resaca de la Palma Park Site [Cameron] John C. Arvin, Compiler

16P. *Seminole Canyon State Historical Park [Val Verde] Terry Maxwell & Sue Wiedenfeld, Compilers

17Q. *South Llano River Park Site [Kimble] Clarence Wiedenfeld, Compiler

[1] Listings are alphabetical by park; counties shown in brackets. Listings marked with an asterisk are in early stages of data gathering.

Table 3. Texas State Parks without checklists.

1. Atlanta [Cass, Atlanta]
2. Big Spring [Howard, Big Spring]
3. Copper Breaks [Hardeman, Quanah]
4. Daingerfield [Morris, Daingerfield]
5. Dinosaur Valley [Somervell, Glenrose]
6. Enchanted Rock [Llano, Fredericksburg]
7. Fairfield Lake [Freestone, Fairfield]
8. Fort Parker/Old Fort Parker [Limestone, Mexia]
9. Garner [Uvalde, Concan]
10. Kerrville [Kerr, Kerrville]
11. Kreische Complex (Including Monument Hill) [Fayette, La Grange]
12. Lake Arrowhead [Archer, Wichita Falls]
13. Lake Brownwood [Brown, Brownwood]
14. Lake Colorado City [Mitchell, Colorado City]
15. Lake Mineral Wells [Parker/Palo Pinto, Mineral Wells]
16. Lockhart [Caldwell, Lockhart]
17. Martin Dies [Jasper, Woodville]
18. Mission Tejas [Houston, Weches]
19. Mustang Island [Nueces, Corpus Christi]
20. Possum Kingdom [Palo Pinto, Caddo]
21. Stephen F. Austin [Austin, San Felipe]
22. Tyler [Smith, Tyler]

can be mailed directly to the senior author. Certain parks have BIRD SIGHTING REPORT FORMS which can be completed, but we are just as pleased to receive information jotted down on notepaper or even on the park's bird checklist itself.

To aid those who may wish to observe birdlife in our state parks or who may be planning a birding trip in Texas, Table 1 includes checklists which are now available. This listing, together with the works in progress (Table 2) and parks for which we have only scattered data on birdlife (Table 3) give an indication where additional volunteer efforts can be most effective and rewarding. Our checklists are available free of charge and may be obtained by writing the senior author or by writing or visiting a park for which a checklist has been published.

Readers interested in helping develop or contributing to a checklist for a state park may contact the senior author and he will be pleased to discuss the procedures we have found most effective. In the meanwhile, we hope that all birders visiting our parks will take the opportunity to record and report on any aspect of a park's birdlife and to share their experiences with us, for it is through public involvement that our checklist program has been and will continue to be successful.

The authors graciously acknowledge assistance from Gail Giacalone, F. E. Green and Judy Riskind.

GENERAL NOTES

First Photographic Record of Greater Flamingo in Texas

Brian R. Chapman,[1] P. A. Buckley,[2] and Francine G. Buckley[2]

[1]Division of Biology, Corpus Christi State University,
Corpus Christi, Texas 78411; and
[2]North Atlantic Regional Office, National Park Service,
15 State Street, Boston, Massachusetts 02109

Although the Greater Flamingo, *Phoenicopterus ruber,* has been occasionally reported from the Texas coast, so many observers confuse the Roseate Spoonbill, *Ajaia ajaja,* with flamingos that many sight records have been discounted. Oberholser (1974, *The Bird Life of Texas*. Univ. Texas Press, Austin) lists seven "careful" sight records of the Greater Flamingo in Texas, none of which is substantiated by photographs. In addition to these sight records Attwater (1891, Ornithologist and Oologist 16:109–110) sighted one flamingo at Aransas Bay and A.S. Hawkins (pers. comm.) observed a flamingo near Green Island on January 10, 1974. The photograph herein (Fig. 1) is the first published photographic record of a Greater Flamingo on the Texas coast.

Fig. 1. Greater Flamingo at South Bird Island, Kleberg County, Texas, 26 April 1978. Photograph by P. A. Buckley.

On 26 April 1978 we observed and photographed a single, brilliantly colored Greater Flamingo feeding in shallow water off of the north end of South Bird Island, an Audubon Sanctuary in the Laguna Madre (Kleberg Co.) approximately 22 km south of Corpus Christi. We were able to approach slowly in a boat to within 50 m before the bird ceased feeding and walked some 20 m away. The bird did not resume feeding, but watched us carefully until our departure 20 min later.

Most flamingos reported in the United States have been considered escapees from semicaptive colonies; few have been regarded as genuine vagrants blown by tropical storms (Oberholser, ibid.). There is presently only one captive flock of flamingos along the Texas coast at the Gladys Porter Zoo, Brownsville. All of the flamingos in the zoo are pinioned, including both young fledged therein (Violet Springman, Information Director, pers. comm.). No flamingo losses were reported from the Houston Zoo, the San Antonio Zoo, or the Audubon Park Zoo in New Orleans. It is possible that the present individual is a vagrant, displaced from a Yucatan breeding colony (see Sprunt 1975, *in* Kear and Duplaix-Hall, *Flamingos*. T. & A.D. Poyser Ltd., Bekhamsted, England). It may have been the same individual observed by W.J. "Friday" Fluman (Audubon Warden, pers. comm.) from late August through September in the the vicinity of Green Island, an Audubon Sanctuary 84 km below South Bird Island in the lower Laguna Madre. Because of the inaccessability of most of the southern Texas and northern Mexico coast, it is possible the bird overwintered somewhere in the Laguna Madre without being observed.

The flamingo was also observed by John M. Leach II, Ruth S. O'Brien and Larry C. Thebeau at the same time.

First Documentation of Connecticut Warbler in Texas

James G. Morgan and Ted L. Eubanks, Jr.

12107 Broken Bough Drive, Houston, Texas 77024 (Morgan) and
4012 Childress, Houston, Texas 77005 (Eubanks)

On 16 September 1978, on a field trip to High Island, Galveston County, a Connecticut Warbler (*Oporornis agilis*) was observed by approximately 25 persons between 1300 and 1345. The authors, David T. Dauphin, and David O. Matson took detailed field notes. During the 45 minute observation period, Eubanks photographed the bird from various angles.

The authors returned to the site at 1600. The bird was attracted by "pishing" sounds. The bird responded with call notes that were loud, flat, and metallic, without any ringing quality. The notes phonetically approached a "chick" sound. After attracting the bird, we observed it for an additional 15 min. The written details, including description of the bird, description of voice and behavior, description of habitat, and an orderly elimination of similarly appearing species,

were published in "The Spoonbill," Volume XXVII, No. 6, October, 1978 (publication of the Ornithology Group, Houston Outdoor Nature Club). A copy of these details and 4 photographic enlargements were sent to Dr. Eugene Eisenmann at The American Museum of Natural History. Upon examining the photographs and written description, Dr. Eisenmann (in litt.) said that the bird seemed to be an *O. agilis,* probably an immature or female. A colleague of Dr. Eisenmann, Mr. John Farrand, agreed that the bird looked like a Connecticut Warbler.

The 4 color slides and 4 color enlargements, along with copies of the written details and correspondence with Dr. Eisenmann were submitted to Dr. Keith A. Arnold at Texas A&M University. Dr. Arnold concurred with Dr. Eisenmann's opinion. The slides and enlargements were deposited in the Texas Photo-Record File as numbers 140 a–h. The photographs clearly showed a conspicuous, complete eye-ring and extremely long under-tail coverts, almost reaching the tip of the middle retrices. Also visible is a brownish tonality on the breast, usually found on immature and female Connecticut Warblers according to Dr. Eisenmann. To the best of our knowledge there is no known specimen of *O. agilis* from the state of Texas and the photographs on file at Texas A&M University constitute the first documented record of this species in Texas.

Acknowledgments

We wish to thank Dr. Eugene Eisenmann, Mr. John Farrand, and Dr. Keith A. Arnold for examining the photographs and confirming the identification.

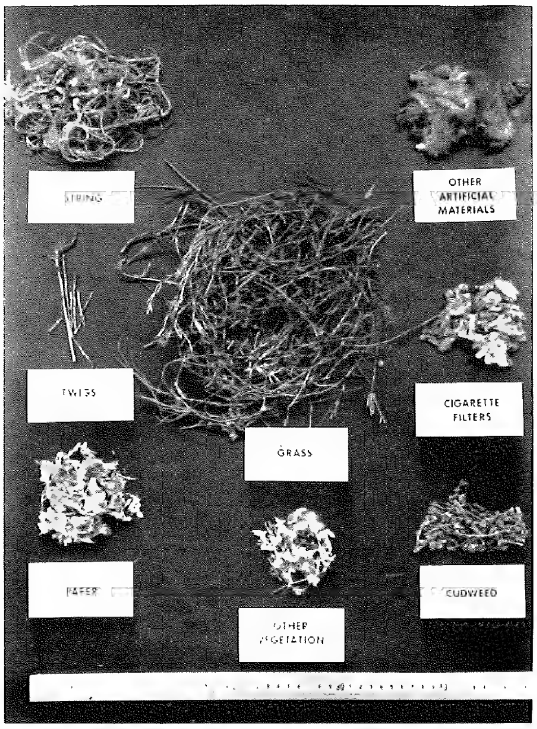
Use of Artificial Materials in Nests of Urban Scissor-tailed Flycatchers

Sandra J. Russell and Larry D. Foreman[1]

Department of Wildlife and Fisheries Sciences,
Texas A&M University, College Station, Texas 77843

Fitch (1950, Auk 67:144–168) analyzed 10 Scissor-tailed Flycatcher (*Muscivora forficata*) nests collected in rural areas of Brazos County, Texas. Most of these nests were constructed almost entirely of plant parts and contained only small quantities of artificial materials such as cloth and string. Bendire (1895, Life histories of North American birds, U.S. Natl. Mus. Spec. Bull. 3) and Simmons (1925, *Birds of the Austin Region,* Univ. Texas Press) also found that most scissor-tail nests throughout the species' range were composed mainly of natural items. However, Bendire (1895) reported one nest located on the edge of the Fort Clarke

[1] Present address: Riverside District Office, B.L.M., 1695 Spruce St., Riverside, California 92507.



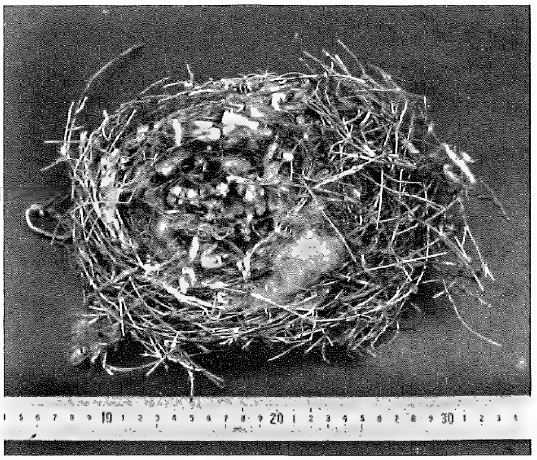


Fig. 1. Nest of urban Scissor-tailed Flycatcher shown in Figure 2 with contents separated into eight categories.

Fig. 2. Nest of urban Scissor-tailed Flycatcher showing string, cigarette filters, carpet fuzz, and paper in nest lining.

parade ground in Texas which consisted almost entirely of strong cotton twine "mixed with a few twigs, weed stems, and rags."

Foreman et al. (1978, Southwest. Natur. 23(4):704–705) recovered a dead Mockingbird (*Mimus polyglottos*) chick and a live Western Kingbird (*Tyrannus verticalis*) chick hanging from their respective nests by string wound around the tarsi. On 30 June 1978 we discovered a dead Scissor-tailed Flycatcher nestling dangling from its nest in College Station, Texas. The tarsus and toes of one leg were bound firmly to the nest by string and carpet fuzz. Although entanglement in nest string is probably not a major mortality factor in scissor-tail chicks, examination of other urban scissor-tail nests revealed that scissor-tails do appear to use large quantities of artificial materials.

We collected 29 Scissor-tailed Flycatcher nests from urban areas in Bryan and College Station, Brazos County, Texas during the summers of 1977 and 1978. Nests were collected after chicks fledged or after breeding failure. Nests were weighed and materials separated into the following categories: string, cigarette filters, paper, other artificial materials, grass, cudweed (*Gnaphalium* sp.), tree twigs, and other natural materials (Fig. 1). For each nest, the weight in grams and percent of nest weight were recorded for each category. The number of pieces and total length of "string" were recorded for each nest. We did not record nest dimensions as the shape of many of the nests had been distorted by weathering or nestling activity.

The foundation and framework of urban scissor-tail nests were usually constructed of grass roots and stems and cudweed stems, while the core was a

Table 1. Composition by weight (g) and percent of nest weight of 29 Scissor-tailed Flycatcher nests collected in the summers of 1977 and 1978 from urban areas in Brazos County, Texas.

Material	Weight (±SD)	Weight range	% of total
Total artificial	13.8 (11.0)	0.6–51.8	30.1
String	6.9 (7.5)	0.0–31.1	14.2
Cigarette filters	3.4 (2.7)	0.0–9.6	8.1
Paper	1.3 (2.4)	0.1–9.8	2.7
Other artificial	2.2 (2.8)	0.0–10.8	5.1
Total natural	29.1 (8.7)	15.2–48.8	69.9
Grass	17.9 (8.5)	0.0–38.3	42.1
Cudweed	6.8 (6.9)	0.0–24.6	16.5
Tree twigs	1.1 (1.9)	0.0–7.1	3.1
Other natural	3.2 (5.9)	0.0–24.8	8.3
Total nest	42.9 (14.2)	23.9–92.6	100.0

compressed mixture of cigarette filters, string, cudweed and grass (Fig. 2). Nest linings consisted of fine grass blades, cigarette filters, paper, seed silk, and carpet fuzz.

Artificial material accounted for 30.1% by weight (g) of the 29 scissor-tail nests (Table 1). String was usually present throughout the nest and acted as a source of binding strength. All but one nest contained string. Numbers of string pieces per nest averaged 39.5 (S.D. = ±36.0); length of string per nest averaged 9.2 m (S.D. = ±9.0). This category included kite string, newspaper ties, thread, yarn, monofilament fishing line, package twine, shoe laces, and thin nylon and cotton ropes.

Although cigarette filters accounted for only 8.1% of total nest weight, they were important in supplying bulk and nest cohesion. Scissor-tails used filters heavily in the core and lining of all 29 nests. Most filters were fluffed and matted together. No other studies have reported finding cigarette filters in scissor-tail nests.

Paper, found in all but four nests, averaged only 2.7% of the nests' weight. It was usually employed in the nest rim and lining.

Other artificial nest materials included carpet fuzz, Christmas tree tinsel, steel wool, elastic and rubber bands, cloth, tape, ribbon, cotton swabs, plastic strips, pillow and furniture stuffing, clothes dryer lint, and fine wire. Nylon carpet fuzz, usually in shades of blue or green, was found in small amounts in the linings of 18 of the 29 nests. Cloth was found in 11 nests, plastic strips in 6 nests, and wire, tinsel and cotton swabs in 2 nests each.

Natural materials averaged 69.9% of each nest's weight. Grass stolons and stems, mostly of Bermuda (*Cynodon dactylon*) and St. Augustine (*Stenotaphrum secundatum*), formed the framework and bulk of 28 of 29 nests. The stiffness of these items, plus cudweed (present in 25 nests), gave nests shape and rigidity. Nests were usually lined with fine grass blades and rootlets and cudweed seed silk. One atypical nest was built almost entirely of the dried stems and seed heads of an unidentified plant, which replaced the grass and cudweed in function. Other natural items, such as insect parts, cocoons, seeds, stems and leaves of other plants, feathers, cow or horse hair, and pebbles, averaged 8.3% of the nests' weight. Bur-clover (*Medicago hispida*) fruit was present throughout the structure

of all nests; the burs bound to the cigarette filters, yarn, carpet fuzz, and string and aided in nest cohesion.

Fitch's (1950) rural scissor-tail nests averaged only 31 g in weight (compared to our 42.9 g), but 95–100% of that bulk was composed of plant parts, particularly Bermuda grass stolons and cudweed. Wool, feathers, hair, cotton, insect parts, and artificial materials contributed to the remaining bulk. Most of Fitch's scissor-tails did incorporate at least some artificial materials such as string, cloth strips, thread, and tissue paper into their nests' structures. One unusual nest contained 49 pieces of string totaling 21.8 m and 4 strips of cloth totaling 88.9 cm in length. While Fitch found a great variety in the kinds of natural material used in individual nests, we found the most variation in the selection of artificial materials. The scissor-tail is evidently opportunistic in its selection of nesting materials, and the nest composition reflects the habitat and availability of these materials.

The authors gratefully acknowledge the review comments of Keith A. Arnold and Jack M. Inglis.

Black-billed Cuckoo (*Coccyzus erythropthalmus*) Breeding in South Texas

David H. Fischer

Rob and Bessie Welder Wildlife Foundation, P.O. Drawer 1400, Sinton, Texas 78387

On 1 June 1977 I observed a nest of Black-billed Cuckoo, *Coccyzus erythropthalmus,* 17 km northwest of Dinero, Live Oak County, Texas. It was situated 3.7 m above the ground between several slender branches of the shrub colima (*Zanthoxylum fagara*) and contained three eggs and one newly-hatched young. Initially, the adult allowed me to approach within 2 m before it flushed from the nest. At this range the diagnostic red eye-ring, uniformly dark bill, and the small white spots on the undersurface of the tail were visible. Repeated attempts to photograph the incubating adult were unsuccessful. On 3 June the nest was abandoned and the nest, eggs (Welder Wildlife Foundation No. 10-11/3), and young were collected and deposited at the Welder Wildlife Foundation near Sinton, Texas. Two intact eggs measured 28.2 × 20.8 mm and 27.5 × 20.3 mm, closely approximating the average egg measurements recorded for the Black-billed Cuckoo (Oberholser 1974, *Bird Life of Texas,* Univ. Texas Press, Austin). The third egg was damaged and could not be measured accurately.

The nest was well constructed from small branches of colima, blackbrush acacia (*Acacia rigidula*), and mesquite (*Prosopis* sp.), and lined with lichens. These are the dominant plant species of the surrounding chaparral. The nest had inside and outside diameters of 69 mm and 123 mm, respectively. It was 63 mm high and had an inside depth of 23 mm.

The breeding of a Black-billed Cuckoo in south Texas has not been reported previously. Three breeding records for this species are currently known for Tex-

as: all were reported from Wise County in northcentral Texas in 1888 (Oberholser 1974, *Bird Life of Texas,* Univ. Texas Press, Austin).

County Records for Bird Specimens in the Collection of The Museum of Arid Land Biology (University of Texas at El Paso) and Two Other West Texas Collections

Tony Gallucci

Department of Biology, Sul Ross State University and the Chihuahuan Desert Research Institute, Alpine, Texas 79830

This paper is the fifth in a series reporting specimens not represented in Oberholser's (1974) major work on the birds of Texas. The gaps in the range of various species, mentioned by Barr et al. (1975) in the first subsequent work, have begun

Table 1. West Texas County Records

Species	Common Name	County	Date
Podilymbus podiceps	Pied-billed Grebe	Hudspeth	Nov. 1976
(This specimen was catalogued (MALB #577) as a Western Grebe (*Aechmophorus occidentalis*) in the collection.)			
Ardea herodias	Great Blue Heron	Hudspeth	Nov. 1972
Branta canadensis hutchinsii (*Branta hutchinsii*)	Canada Goose	El Paso	Oct. 1966
Anas platyrhynchos (*Anas platyrhyncha*)	Mallard	Hudspeth	Oct. 1972
Anas strepera (*Chaulelasmus streperus*)	Gadwall	Hudspeth	Nov. 1973
Anas penelope	European Wigeon	Hudspeth	Nov. 1976
(*Mareca penelope*) (This specimen is fully mounted and in the possession of Dr. A. G. Canaris, El Paso (K. Zimmer, pers. comm.; in Williams 1977).)			
Anas americana (*Mareca americana*)	American Wigeon	Hudspeth	Nov. 1976
Bucephala albeola	Bufflehead	Hudspeth	Nov. 1976
Porzana carolina	Sora	Hudspeth	Nov. 1973
Coturnicops noveboracensis	Yellow Rail	Brewster	Jan. 1976
(This specimen is in the Natural History Collection of Big Bend National Park (LoBello and Steed, pers. comm.; in Williams 1976).)			
Limnodromus scolopaceus (*Limnodromus griseus*)	Long-billed Dowitcher	Hudspeth	Nov. 1972
Asio flammeus	Short-eared Owl	Hudspeth	Mar. 1974
Quiscalus quiscula	Common Grackle	El Paso	Oct. 1973; May 1974
Spizella pusilla	Field Sparrow	El Paso	Oct. 1965

to disappear with the addition of three more titles updating Oberholser (Bryan and Moldenhauer 1977; Dowler et al. 1978; Gallucci and Scudday 1978).

The following additional records are compiled from the collections of the Museum of Arid Land Biology at the University of Texas at El Paso, Big Bend National Park (one specimen) and the private collection of Dr. A. G. Canaris (one specimen). Again, only those specimens for which no county record was cited by Oberholser (1974) or subsequent publications (Barr et al. 1975; Bryan and Moldenhauer 1977; Dowler et al. 1978; Gallucci and Scudday 1978) either by map or in text are listed. Also no sight records are included. The listing follows the taxonomic order of Oberholser (1974) and taxonomic nomenclature follows the American Ornithologists' Union Check-list of North American Birds (5th ed., 1957), the Thirty-second (1973a) and Thirty-third (1976) supplements and their respective corrections and additions (1973b; 1977). Where it differs Oberholser's (1974) nomenclature is given in parentheses. All specimens are from the Museum of Arid Land Biology unless otherwise noted (Table 1).

This is contribution No. 45 of the Chihuahuan Desert Research Institute. The author would like to thank Dr. Arthur Harris of the Museum of Arid Land Biology and Frank Deckert, Chief Naturalist, Big Bend National Park for access to their collections.

Literature Cited

American Ornithologists' Union. 1957. Check-list of North American Birds, 5th Ed. Lord Baltimore Press, Baltimore.

———. 1973a. Thirty-second supplement to the American Ornithologists' Union Check-list of North American Birds. Auk 90:411–419.

———. 1973b. Corrections and additions to the "Thirty-second supplement to the American Ornithologists' Union Check-list of North American Birds." Auk 90:887.

———. 1976. Thirty-third supplement to the American Ornithologists' Union Check-list of North American Birds. Auk 93:875–879.

———. 1977. Corrections to the "Thirty-third supplement to American Ornithologists' Union Check-list of North American Birds." Auk 94:190.

Barr, A. L., K. A. Arnold, and S. F. Holm. 1975. A listing of county records for specimens in the Texas Cooperative Wildlife Collection not reported in Oberholser's "The Bird Life of Texas." Bull. Texas Ornith. Soc. 8:8–10.

Bryan, K. B., and R. R. Moldenhauer. 1977. Additional Walker County records to Oberholser's "The Bird Life of Texas." Bull. Texas Ornith. Soc. 10:36–38.

Dowler, R. C., D. K. Dean, T. E. Herman, and A. C. Simon. 1978. County records in Texas for birds housed in the Museum, Texas Tech University. Bull. Texas Ornith. Soc. 11:12–16.

Gallucci, T., and J. F. Scudday. 1978. County records for bird specimens in the Sul Ross State University collection not reported in Oberholser's "The Bird Life of Texas." Bull. Texas Ornith. Soc. 11:10–11.

Oberholser H. C. 1974. The Bird Life of Texas. University of Texas Press, Austin.

Williams, F. 1976. Southern Great Plains. American Birds 30:736.

———. 1977. Southern Great Plains. American Birds 31:194.

NOTES AND NEWS

ABOUT THE ARTIST.—The drawing of the Kiskadee Flycatcher (inside front cover) is by Chester O. Martin. Martin's drawing of a pair of Great Blue Herons was featured in the June–July 1978 *Bulletin*. Martin is a Wildlife Biologist for the U.S. Army Corps of Engineers, Galveston District. He and his wife, Shirley, and two children reside at 912 Cypress, La Marque, Texas 77568.

REQUEST FOR INFORMATION.—The weekend of September 21–22–23 has been designated a special hawk watch period. Please choose a site that is convenient to you and man it all day if possible, at least one of these days, all three if you can. If you need further instructions or report forms, please contact Mrs. Gladys Donohue, Regional Editor, Hawk Migration Association of North America, Rt. 6, Box 616D, Mission, Texas 78572. Send your completed report forms to the same address.

SUGGESTIONS TO AUTHORS

The *Bulletin of the Texas Ornithological Society* publishes articles and notes on original ornithological research or observations. Articles and notes dealing with Texas birds are preferred. General articles on topics of interest to *TOS* members are also welcomed.

All manuscripts should be submitted in duplicate to the editor. Each manuscript will be read by one or more reviewers who will provide the editor advice on the article's acceptability and accuracy.

Manuscripts, including tables, should be typewritten and double-spaced on one side of 8½ × 11 inch (21½ × 28 cm) paper. Submitted articles, notes and reviews should follow the format observed in this and subsequent issues of the *Bulletin of the Texas Ornithological Society*. Feature articles should include a "literature cited" section. Shorter articles and notes, with five cited works or less, should use parenthetical citations, e.g. (Oberholser 1974, *The Bird Life of Texas*, Univ. Texas Press, Austin).

Scientific and common names of North American birds should follow the 1957 A.O.U. Check-list and supplements. The 24-hour clock (0730), the continental dating convention (2 October 1976), and the metric system should be used.

Proofs of articles and notes will be sent to authors for review and correction. Immediate return of proofs is necessary. Reprints of articles, notes, and reviews may be ordered on forms sent with proofs.

TEXAS ORNITHOLOGICAL SOCIETY

Dedicated to the observation, study and conservation of birds in Texas

Founded 1953

OFFICERS FOR 1979–1981

President—B. D. Orgain, 1970 Shady Lane, Beaumont, TX 77706.
President-elect—Alma Barrera, 2111 Travis Heights Blvd., Austin, TX 78704.
Vice-president—Keith A. Arnold, Dept. of Wildlife and Fisheries Sciences, Texas A&M Univ., College Station, TX 77843.
Secretary—Bessie Cornelius, 720 Wade Street, Beaumont, TX 77706.
Treasurer—Sam Crowe, 129 Fairwood Village, Plano, TX 75074.
Bulletin Editor—R. Douglas Slack, Dept. of Wildlife and Fisheries Sciences, Texas A&M Univ., College Station, TX 77843.
Newsletter Editor—Kelly B. Bryan, 2525 Robinson Way, Huntsville, TX 77340.
Past-president—Charles Dean Fisher, Dept. of Biology, Stephen F. Austin Univ., Box 3003, Nacogdoches, TX 75961.

REGIONAL DIRECTORS

I. Cliff Stogner, 4304-42nd Street, Lubbock, TX 79413.
II. Kenneth Nanney, 1005 Roman Road, Grand Prairie, TX 35050.
III. Ralph Moldenhauer, Dept. of Life Sciences, Sam Houston State Univ., Huntsville, TX 77341.
IV. Jodie Miller, Box 279, Valentine, TX 79854.
V. Clarence Wiedenfeld, 127 Oakwood, San Angelo, TX 76901.
VI. Tony Gallucci, Dept. of Wildlife and Fisheries Sciences, Texas A&M Univ., College Station, TX 77843.
VII. Phyllis Yochem, 354 Williamson, Corpus Christi, TX 78411.
VIII. Mary Ann Chapman, P.O. Box 1194, Bellaire, TX 77401.

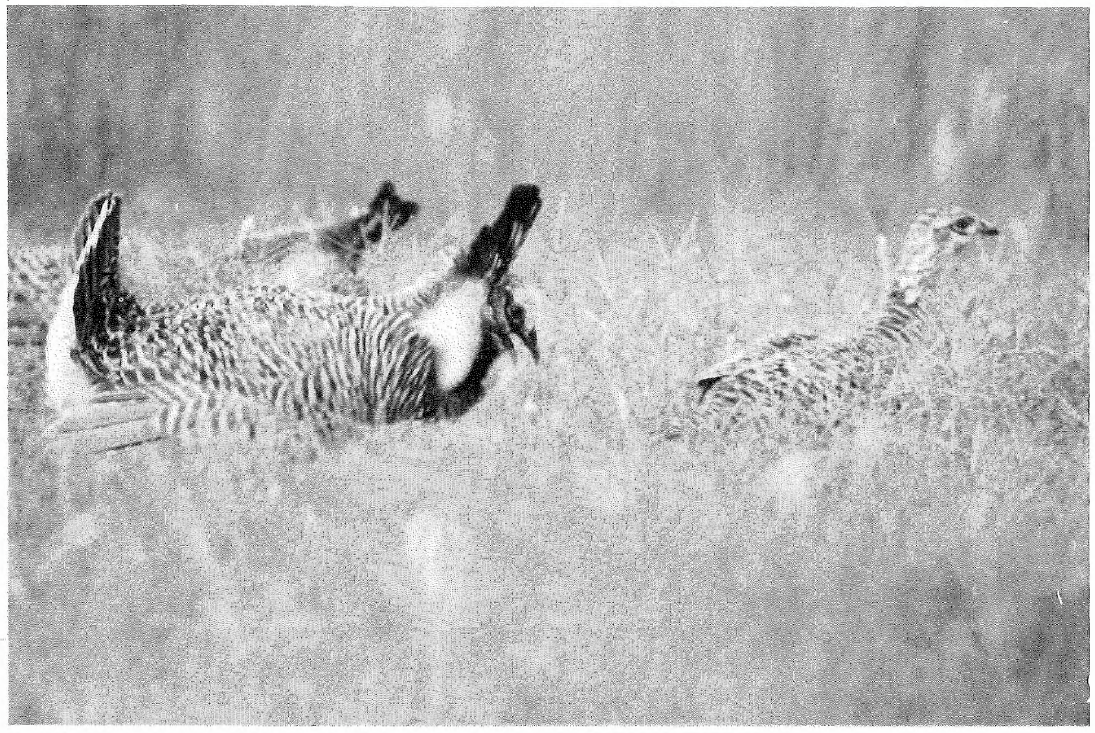
The *Bulletin* and *Newsletter* of the *Texas Ornithological Society* are issued to all members not in arrears for dues. Membership in the *Texas Ornithological Society* is open to all persons interested in observation, study, and conservation of birds in Texas. Membership dues are $3.00 per year (student), $5.00 per year (active), $10.00 per year (sustaining), $100.00 paid once, or in $25.00 annual payments over a period not to exceed four years (life). Inquiries regarding membership should be addressed to Ms. Elaine Robinson at *TOS*, P.O. Box 19581, Houston, Texas 77024. Original articles, reports and other items submitted for inclusion in the *Bulletin of the Texas Ornithological Society* should be sent to the editor, R. Douglas Slack, Department of Wildlife and Fisheries Sciences, Texas A&M University, College Station, Texas 77843.

Printed at Allen Press, Inc., Lawrence, Kansas 66044

BULLETIN
OF THE
TEXAS ORNITHOLOGICAL SOCIETY

R. DOUGLAS SLACK, Editor
Department of Wildlife and Fisheries Sciences
Texas A&M University
College Station, Texas

NON-PROFIT ORG.
U.S. POSTAGE
PAID
AUSTIN, TEXAS
PERMIT NO. 2744



Two male Attwater's Prairie Chicken males court a receptive hen on booming ground near Refugio, Texas. Photograph by Larry Chandler.